Chapter 7. Existing Programs to Promote Broadband

7.1 Subsidy Programs

Subsidy programs are designed to benefit consumers of broadband service by reducing the monthly price, making the service more affordable. Incentive programs are designed to both encourage further deployment of broadband infrastructure and provide education and training about broadband technology to promote the use of advanced telecommunications technology.

Two subsidy programs, the California Teleconnect Fund (CTF) and the Federal E-Rate program, provide benefits directly to consumer end users and are available to Californians.
Under both the CTF and E-Rate programs, qualified participants receive discounted service from telecommunications carriers, which are then compensated with program funds for the discount provided. The subsidies are provided to organizations that share their technology with the larger community. The FCC's E-Rate program offers eligible K-12 schools and libraries a discount of 20% to 90%.[153] The CTF program provides a 50% discount for eligible schools, libraries, hospitals, health clinics and community based organizations. The table below compares the CTF and E-Rate Programs.

Eligible schools and libraries can participate in both the E-Rate program and the CTF program. CTF participants are not required to participate in the E-Rate program and some CTF recipients, who are also eligible for E-Rate funding, choose not to apply for E-Rate benefits because of the complexities and delays in the application process. The CPUC is currently researching how to adjust the CTF discounts to encourage E-Rate participation.

[153] On August 3, 2004, the FCC suspended any new grants from the E-rate program. On November 29, 2004, funding for the program resumed.

Figure 7.1
Comparisons of CTF and E-Rate

	CTF	E-Rate
Eligible Entities	Schools, libraries, hospitals, health clinics and community based organizations	Schools and libraries
Amount of Discount	50%	20% to 90%
Services Covered	Regular phone service and high speed data lines	Data lines, Internet service providers and internal building equipment
Funds Committed 1999 – 2003	$290 million	$1,641 million This is the amount of funding received by California schools and libraries.
Funding Source	(A)[154]	Universal Service fee charged to companies providing interstate and/or international telecommunications services

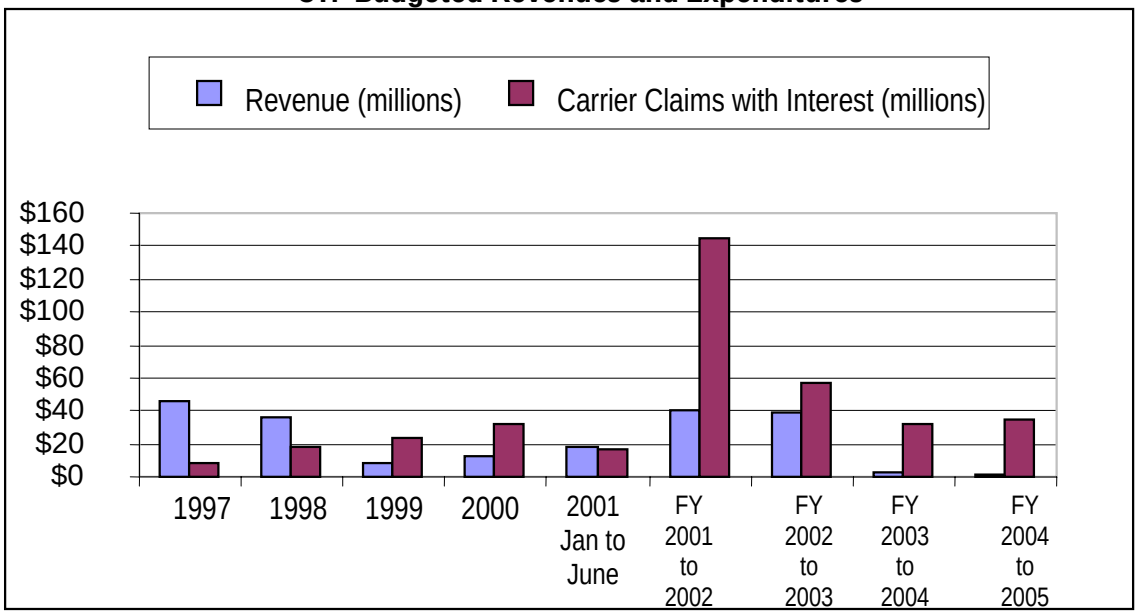
7.1.1 California Teleconnect Fund

The California Teleconnect Fund program, administered by the CPUC, provides a discount of 50% on selected telecommunication services to qualified schools and libraries, municipal-, county-, or hospital district-owned and operated hospitals or health clinics, and community based organizations offering health care, job training, job placement, and/or educational instruction. The covered services range from basic telephone service to high-speed transmission lines for data services.

The table below shows the CTF program's budgeted revenues and expenditures from 1997 through the current fiscal year. The table below shows the CTF program's budget revenues and expenditures from 1997 through the current fiscal year. A review of the table indicates that there has historically been a disconnect between the program's budgeted revenues and budgeted claims. In some years, program revenues far exceeded claims, and in other years, claims far exceeded revenues. Such discrepancies, along with operational problems discussed below, have been a cause of concern. An appropriation of $17,974,000 for Fiscal Year 2004/2005 was adopted by the Legislature.

[154] The all-end-user surcharges are assessed on consumers' bills for intrastate telecommunications services except for the following: Universal Lifeline Telephone Service (ULTS) billings, charges to other certificated carriers for services that are to be resold, coin sent paid telephone calls (coin in box) and debit card calls, customer-specific contracts effective before September 15, 1994, usage charges for coin-operated pay telephones, directory advertising, and one-way radio paging.

Figure 7.2
CTF Budgeted Revenues and Expenditures



The CTF program receives funds from an end-user surcharge applied to the intrastate portion of all customers' monthly telephone bills. The current surcharge is 0.16%. From the program's implementation in 1997 through 2002, the surcharge rate has ranged from 0.05% to 0.41%. From January 2003 through July 2004, the surcharge was set at 0%, when the surcharge was suspended because more than sufficient funds had been collected for the subsequent fiscal year.

7.1.2 Services Covered

The CTF discount applies to both regular telephone service as well as advanced services. At present, claims paid to providers show that the percentage of funds dedicated to advanced services versus regular telephone service is about evenly split. However, although DSL is an eligible service under CTF program rules, few telephone companies are providing DSL under the program. More funds could be dedicated to advanced services if providers elected to offer DSL under the CTF program.[155]

[155] SBC's affiliate, SBC Advanced Solutions, Inc. (SBC ASI) has filed intrastate tariffes with the CPUC for advanced telecommunications services and provides CTF discounts on these services when purchased by qualifying organizations. SBC ASI is the only broadband provider to do so.

7.1.3 CTF Program Issues

Recipients of CTF subsidies report that while the program has helped lower-use communities, the subsidies are not sufficient because they do not cover broadband access to the home. While many organizations rely on the CTF to pay for broadband service, there are even more that are unaware of the program's existence.[156] The survey revealed that there are a number of organizations that do not receive any type of support for broadband service and are not familiar with the CTF Program.[157]

Providers who participate in the CTF program have stated that there are delays in claim processing and uncertainty about the availability of funds given the state's ability to borrow money for the General Fund.[158] Claim processing delays occur when there is a significant influx of claims filed at the same time. Claim processing procedures have been significantly streamlined with CPUC adoption of Resolution T-16763 in May 2004, reducing the potential for future backlogs.

Because of the uncertainty created by the budgetary battles over CTF funding, providers may be hesitant to further promote the CTF program because providers apply the discount to end user's bills, with no guarantee that the state will reimburse them for the discount.

The CPUC staff currently conducts outreach to community-based organizations in order to expand awareness of the CTF fund, in an effort to increase subsidies to these groups.

7.1.4 E-rate Program

The E-rate program provides eligible K-12 schools and libraries a discount of 20% to 90% off telephone service, internet access and other services. The level of discounts depends on the poverty level and the urban/rural status of the population served. The table below shows how the discount is determined.

[156] 47% of respondents received support from the CTF while 35% received support from E-rate and another 18% from Rural Utilities Service (RUS). RUS is discussed later in this chapter. Of the 82 respondents to the second survey, only eight reported receiving the CTF subsidy. 39 respondents reported that they were not aware of the CTF at all.

[157] Of the respondents not identifying the CTF program as a support mechanism used, 58% stated that they did not know about the program.

[158] Funding for the CTF Program was not included in the 2004-2005 State budget. However, Senate Bill 1276, signed by Governor Schwarzenegger on September 28, 2004, authorizes funding for the CTF Program.

Figure 7.3
Determination of Discount Percentage

INCOME	URBAN DISCOUNT	RURAL DISCOUNT
If the % of students in THE school that qualify for the National School Lunch Program is...	...and you are in an URBAN area, your discount will be...	...and you are in a RURAL area, your discount will be...
Less than 1%	20%	25%
1% to 19%	40%	50%
20% to 34%	50%	60%
35% to 49%	60%	70%
50% to 74%	80%	80%
75% to 100%	90%	90%

The average percentage discount received from the E-Rate Program by California schools and libraries for the past five years is shown below.

Figure 7.4
Average E-Rate Discount[159]

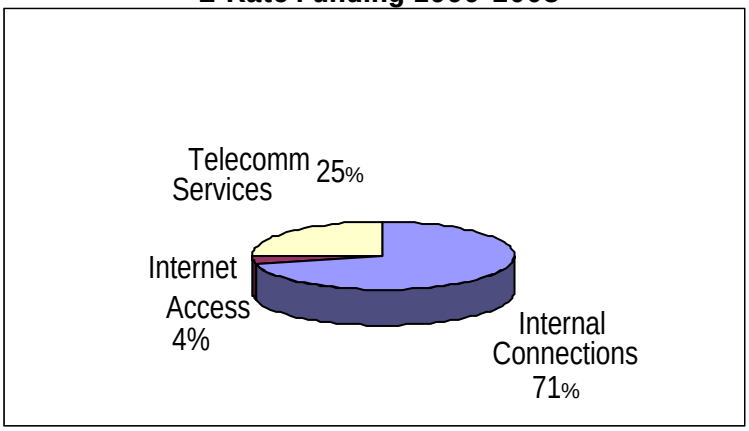
1999	75.57%
2000	82.75%
2001	82.65%
2002	78.14%
2003	79.84%

The E-Rate program provides discounts for telephone services, Internet access as well as the costs associated with connecting users to common equipment. The program also covers usage, cell phones and long distance, which the CTF does not. Internet access includes "basic conduit access" to the Internet. The E-Rate program defines "basic conduit access" as all standard features typically provided by Internet Service Providers. Internal connections are infrastructure items serving multiple users, such as cabling and file servers.

California schools and libraries have received $1.6 billion from the E-Rate program during the last five years. $63.5 million (4%) of the $1.6 billion has been appropriated for Internet access. The following figure illustrates the funds distributed to California over the last five years and the types of services that were subsidized:

[159] Percentages calculated from data downloaded from www.sl.universalservice.org.

Figure 7.5
E-Rate Funding 1999-2003



7.2 Federal Incentive Programs

In addition to the E-Rate program, which offers direct subsidies to the users, there are a number of existing federal programs that provide funding for broadband deployment, education and telemedicine services. The USDA is the lead federal agency on these initiatives, as well as the agency with the greatest amount of funding available. The United States Department of Commerce and the Department of Health and Human Services also provide funding for broadband related projects. Additionally, there are Congressional initiatives that provide funding to rural and lower-use communities.

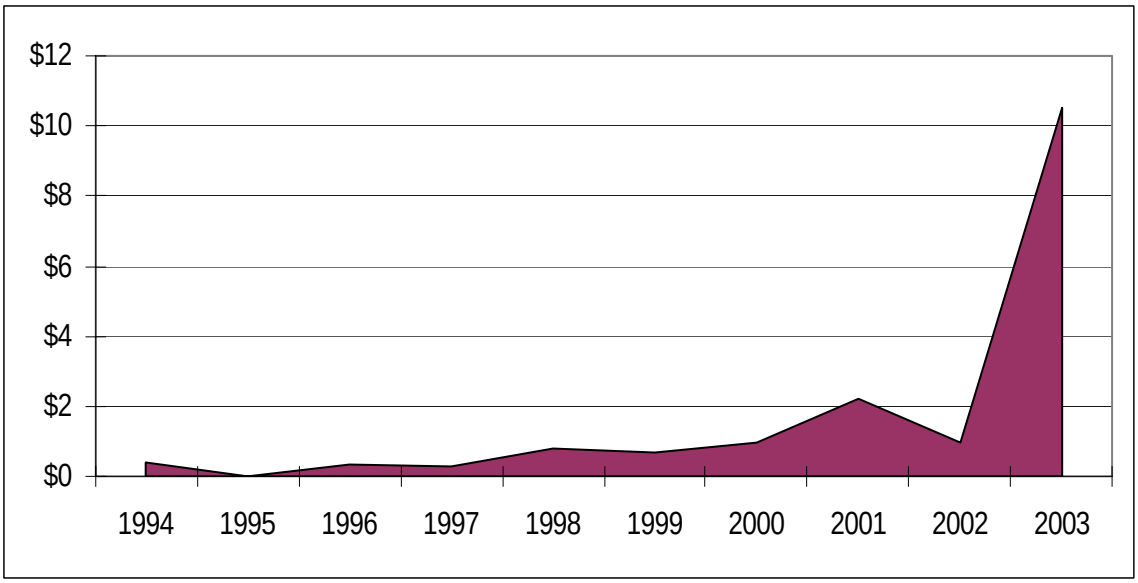
7.2.1 The Rural Utilities Service

The Rural Utilities Service (RUS) program provides grants, incentives, and low-interest financing to electric, communications, water, sewer, telecommunications, and environmental projects. The RUS has been in existence for over 50 years, always with the purpose of providing essential services to rural communities. In October 2003, the RUS program issued $44 million in grants for programs to improve access to broadband for educational institutions, medical agencies for telemedicine services, as well as to generally increase penetration of broadband usage in rural communities. Of the $44 million, $23.5 million was provided for distance-education projects, $11.3 million for rural community projects, and $8.9 million for telemedicine projects.[160] According to the RUS's 2003 annual report, the program has an excess funding level of $1.8 billion specifically earmarked for telecommunications.[161] Over $2.2 billion was made available for loans to promote broadband access in 2004/2005.[162]

The following graph illustrates the $17.2 million cumulative funding provided to California beneficiaries of the RUS program for the years 1994 to 2003. Three awards are in the 2003 amount, including one award for $9.7 million to Doctors Telehealth Network in Newport Beach, California.

[160] Federal Computer Week, October 1, 2003.
[161] http://www.usda.gov/rus/index2/RUSannualreport.pdf.
[162] Federal Register, Vol. 69, No. 60, March 29, 2004.

Figure 7.6
RUS Grants to California Recipients
(Dollars in millions)



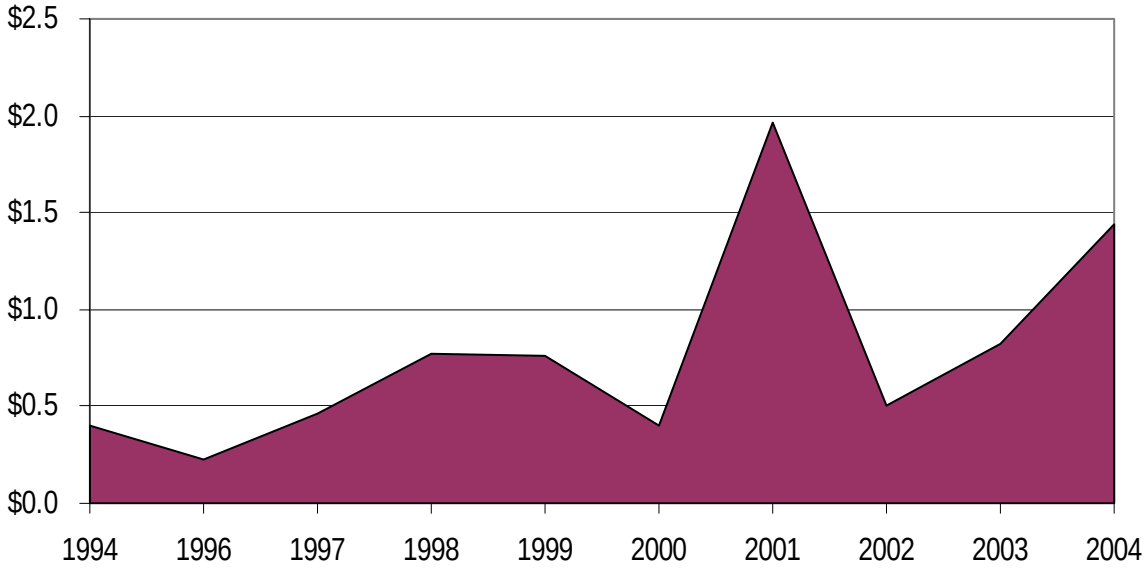
On May 4, 2004, the USDA announced that it would provide $190 million in broadband loans to 19 states.[163] States qualified for the loans by agreeing to arrange for matching funds and using the loans to improve broadband access in low-income communities with less than 2,500 people. As of November 2004, the RUS had announced that two California providers had received Broadband Loan Awards: $7.7 million to Calaveras Telephone Company in Copperopolis and $38.3 million to Sierra Telephone Company in Oakhurst.[164]

7.2.2 Distance Learning and Telemedicine Grant Program

The Distance Learning and Telemedicine Grant Program (DLT), also administered by the RUS, helps fund capital costs for broadband infrastructure and equipment for eligible institutions such as schools and hospitals, and requires a 15% matching of costs. The DLT program has spent $173 million funding broadband projects since 1993.[165] California has received over $8 million from this program, up to and including 2003. In 2004, the DLT program issued $24,604,673 in grants, with California receiving a $447,752 award for West Hills Community College.[166]

[163] http://www.usda.gov/Newsroom/0180.04.html. The 19 states are AL, AR, MS, GA, KS, TX, LA, MI, ND, OH, OK, PA, SC, SD, TN, CO, IL, VA, and WI. To fund the loans, $150 million came from the 2002 Farm Bill, and $40 million from the traditional RUS program.
[164] http://www.ruralbroadbandcoalition.net/RUSLoans.pdf.
[165] Application information can be found at http://www.usda.gov/rus/dlt/dlml.htm, and DLT regulation at http://www.usda.gov/rus/dlt/dltregs.htm.
[166] http://rurdev.usda.gov/rd/newsroom/2004/2004DLTGrants.html.

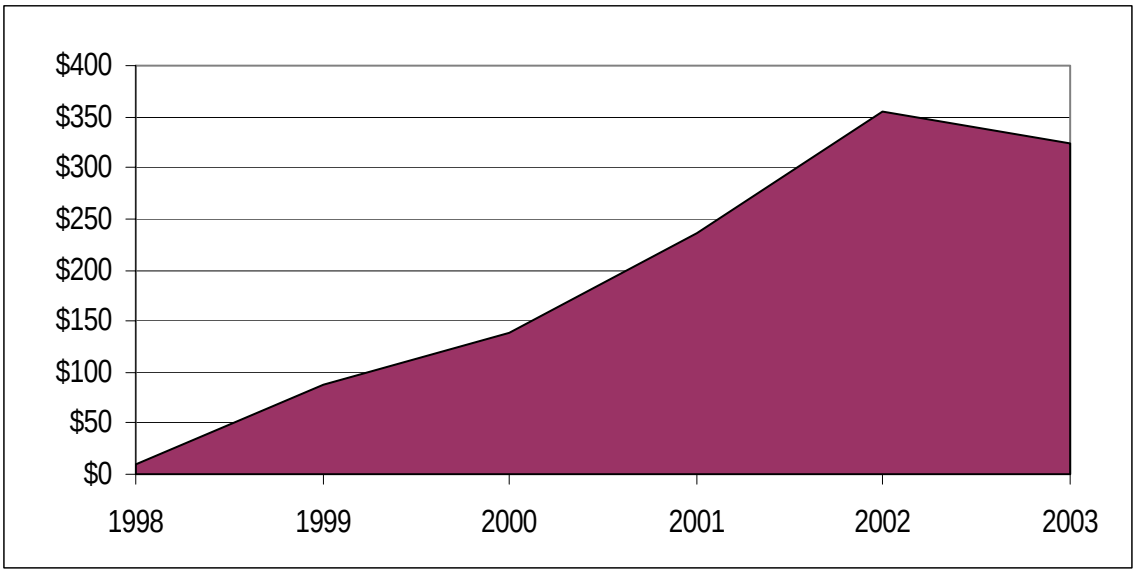
Figure 7.7
Distance Learning Grants to California Recipients
(Dollars in millions)



A number of programs specifically promote telemedicine in rural areas. For communities that lack a medical infrastructure, these programs can provide real-time care in such areas as consultations, drug abuse therapy, and counseling. In 2003 the Department of Health and Human Services awarded $3.74 million in grants to improve rural telemedicine outreach.[167] The Health Resources and Services Administration Office for the Advancement of Telehealth announced a $3.86 million grant program on October 21, 2003. The following graph illustrates that California recipients have received a cumulative $1,151,254 in Telemedicine grants for the years 1998 - 2003.

[167] http://tie.telemed.org/funding/news.asp.

Figure 7.8
Telemedicine Grants to California Recipients
(Dollars in thousands)



7.2.3 Technology Opportunities Program

The United States Department of Commerce funds the Technology Opportunities Program (TOP). TOP provides matching grants for projects to increase training in advanced telecommunication technology. TOP's purpose is to support lifetime learning, assist public safety officials, encourage telemedicine applications and promote economic development. In 2004, 27 TOP grants were awarded for a total of $14.4 million, including grants to San Diego State University Foundation and San Joaquin General Hospital.[168]

7.3 What Other States Are Doing

Many states have taken steps to facilitate broadband deployment. States have generally avoided direct intervention in the broadband market, however. The extent to which state governments are engaged in deployment of broadband infrastructures varies according to policymakers, strategies, budgetary situations, and other factors.

A matrix identifying a variety of government initiatives for deployment of broadband infrastructure is attached to this report as Appendix B. The types of policies examined in the matrix largely address state government actions taken outside of the regulatory context that are aimed at directly or indirectly assisting the build-out of broadband network infrastructure.

The following are eight examples of approaches taken by other states to encourage broadband deployment.

[168] http://www.ntia.doc.gov/top.

7.3.1 Alaska

The Regulatory Commission of Alaska (RCA), the equivalent of the CPUC, developed a program called the "Rural Alaska Broadband Internet Access Program" in 2002 to provide grants funding 75% of costs to bring high-speed Internet to isolated communities. The funds for the program were obtained from the federal government's Rural Utilities Services (RUS). The recipients of the grants are required to charge a rate comparable with the price in urban areas, such as Fairbanks or Anchorage (currently around $50 per month) through the maintenance phase of the project. As of May 5, 2004, $15 million has been allocated to the program, with $4 million already committed to various projects.[169] The FCC's 477 report states that between December 2002 and December 2003, there were almost 16,000 broadband lines installed in the state of Alaska, representing approximately a 28% increase in broadband penetration.[170]

7.3.2 Idaho

Idaho provides a Broadband Tax Credit of 3% for Idaho taxpayers. The credit allows corporations and individuals to install qualifying broadband equipment that has a capacity of transmitting signals at a rate of at least 200 Kbps to a subscriber and at least 125 Kbps from a subscriber.[171] According to the Idaho Public Utilities Commission (IPUC), in the first three years, the program has funded almost $3 million in broadband projects, with another $500,000 to $750,000 currently pending. Qwest, Verizon and CableOne submit the majority of the applications. The tax credit not only has a carry-forward option, but also is transferable, in that a company can sell its tax credit. In the most recent legislative session, the governor signed a bill to extend the program. According to the FCC's Form 477, from 2000, until the most current information available, an additional 72,000 broadband lines have been added in the state, an increase of over 897%.

7.3.3 Maine

Maine offers a number of research and development and technology tax credit incentive programs, including the "High Technology Investment Tax Credit."[172] Eligibility criteria are designed for businesses primarily engaged in high tech activities, such as design and production of computer software, equipment, and supporting communications components. The credit amount is equal to the adjusted basis of eligible equipment placed in service in Maine, less any lease payments received during the taxable year. The credit cannot reduce the tax liability to less than the preceding tax year's liability after the allowance of any credits, and it cannot reduce the tax liability in the current year below zero. Any unused portions of the credit may be carried forward five years but the credit cannot exceed $100,000 in any one year and income must be increased by any credit base amount claimed as a business expense. The High Technology Investment Tax Credit is part of an ongoing effort to increase investment in the state. Since inception, this tax credit has funded an estimated $2 million in broadband projects. Maine also has a Business Equipment Tax Reimbursement that reimburses businesses for locally-imposed business equipment taxes, but it cannot be used in tandem with the High Tech tax credit. The program has assisted operations such as MBNA, LL Bean and BankNorth and has led to a significant growth of call centers. Maine now has more call centers per capita than any other state. According to the FCC's Form 477, from 2000, until the most current information available, an additional 73,000 broadband lines have been added, an increase of over 278%.

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169 http://www.state.ak.us/rca/Headlines/040506_1.pdf.

170 http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/hspd0604.pdf.

171 Before the Idaho Public Utilities Commission, Case No PRJ-T-03-1, Order No. 29318.

172 http://www.maineco.org/advantages/I_tax_credits.html.

7.3.4 Michigan

The Michigan Broadband Development Authority (MBDA) was established in August 2002 to spearhead a state initiative to encourage broadband deployment. Michigan has also raised capital through bond issues to increase financing opportunities for providers, and to provide community grants and low interest loans for the planning of infrastructure projects. Interested companies must submit a business plan that includes financing needs and expected results. According to the September 2002 report by the MDBA, 32 project proposals had been submitted for requests totaling over $250 million. These projects (ranging from $500,000 to $50 million) include DSL, cable, medical applications, E-commerce, data centers, and others. Michigan's programs to increase broadband subscription are ongoing, with the most recent balance sheet of the Michigan Broadband Development Authority showing Total Assets of $45 million. Forecasted 2004 financial statements show a loan portfolio of $11 million, that is estimated to be $150 million by 2009. According to the FCC's Form 477, since the date of the MDBA's inception in 2002, an additional 208,000 broadband lines have been added in the state, an increase of about 32%.

7.3.5 Mississippi

In 2003, the Mississippi Broadband Technology Development Act was enacted in the state legislature. The Technology Act seeks to bring broadband and similar services to "Tier 2" and "Tier 3" areas, not just "Tier 1" by means of infrastructure investment.[173] The Act became effective on June 30, 2003 and remains in effect until July 1, 2013. Recipients are awarded tax credits based on the areas in which they plan to invest. Equipment costs for providing broadband service are reimbursed at a rate of 5%, 10%, and 15% (urban to rural), with a credit cap of 50% of the provider's tax liability. But unlike Oregon or Montana, the provider can carry forward the benefit for a maximum of 10 consecutive years. To qualify as broadband technology, a minimum of 384 Kbps transmission speed is required in at least one direction. The state Science & Technology Institute quotes BellSouth as praising Mississippi's initiative in providing tax credits for broadband investment, and states that prior to the legislation, costs to expand broadband technology into rural areas was too cost-prohibitive.[174] In the same report issued by TechNet, BellSouth estimated that it has spent over $10 million dollars in Mississippi by the end of 2003, and now believes that it has 100% DSL coverage in the state. According to the FCC's Form 477, in 2003 an additional 35,000 broadband lines have been added, an increase of almost 44% from 2002.

7.3.6 Montana

Montana offers a 20% tax credit to telecommunication providers who invest in advanced telecommunications infrastructure improvements in the state. The tax credit (called the Advanced Telecommunications Infrastructure Tax Credit) may not exceed a total of $2 million for all qualified telecommunication services in any consecutive 12-month period. There are further tax implications, forbidding the use of carry-back or carry-forward of any losses resulting from the credit, and no refund is allowed on a tax return if the company has a zero or negative tax liability as a result of the credit. A provider is required to submit an application proving that the investment would improve access to a majority of customers in an unserved or lower-use

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[173] The tiers each represent one third of the counties in Mississippi ranked by average per capita income and unemployment rates. The 27 counties with the highest income and lowest unemployment are designated Tier 1. The next lowest income and highest unemployment is Tier 2, then Tier 3.

[174] http://www.matr.net/print-7475.html.

community. In 2000, the program accounted for $204,221 in tax credits, which was included in an estimated $1,777,237 in total infrastructure expenditures that year. The following year, $1,006,476 in tax credits was awarded, for a total infrastructure investment of almost $11,000,000.[175] By the end of 2001, it is estimated that over 120 formerly lower-use rural areas of Montana now have complete access to broadband, DSL, or comparable services. Funding for these projects was eliminated after 2002 due to budget concerns. The director of the program noted that while a number of useful projects were started, there were fewer than expected applications from providers. According to the FCC's Form 477, since 2000 (the first year data is available for Montana) until the most current information available, an additional 32,000 broadband lines have been added, an increase of over 432%.

7.3.7 Ohio

The Public Utilities Commission of Ohio created the Community Technology Fund. This fund was created to help ensure that rural communities would have access to advanced telecommunications technology. As of June 2001, the Fund had awarded $754,000 to various not-for-profit organizations in their efforts to bridge the digital divide. According to the FCC's Form 477, since 2001 until the most current information available, an additional 541,000 broadband lines have been added, an increase of over 124%.

7.3.8 Oregon

Oregon has two broadband investment programs with different incentives. The Advanced Telecommunications Facility Credit (ATFC) provides a tax credit to broadband providers investing in broadband infrastructure and equipment in lesser-use communities. The ATFC offers a tax credit based on total expenditures. The tax credit is capped at $10 million, or 10% of the total expenditure. Other stipulations include a limit on customer price to 125% of average cost in a comparable urban area, and access must be made available to at least 51% of persons in the lesser-use community to be served. "Advanced telecommunications" is defined as equipment receiving and sending at a minimum transmission speed of 200 Kbps.

The Oregon Telecommunications Infrastructure Act (TIA), the other broadband program, offers grants based on an identified need in lesser-use communities, usually rural areas. Funded by U.S. West funds as a condition of the deregulation of its intrastate operations, over $70 million dollars has been invested in TIA infrastructure projects. Grant amounts are not limited and recipients are not subject any requirements. However, tax credits received under the ATFC program are deducted from TIA grant awards. According to the FCC's Form 477, since the inception of ATFC and TIA in 2001, 287,000 broadband lines have been added in Oregon, an increase of 308%.

[175] http://www.techpolicybank.org/mtprogram.html.

7.3.9 Rights of Way

A number of states have paid particular attention to reforming their Rights of Way process. For example, Florida and Michigan have undertaken efforts to standardize and streamline the ROW process in an effort to encourage broadband deployment. Below are highlights of their recent ROW legislation:

Florida: Simplified Communications Services Tax

- Creates a common base for the assessment of all local taxes and fees on all communications services.
- All communications providers are required to pay the same fees.
- Local governments can wave their rights to franchise fees in exchange for an increase in local taxes.
- Local governments will set general ordinances for the use of ROW, therefore communications provider will not have to enter into individual use agreements with each local jurisdiction.

Michigan: Metropolitan Extension Telecommunications Rights of Way Oversight Act

- Creates a telecommunications ROW oversight authority.
- Coordinates with local governments to collect ROW fees.
- Standardizes ROW permitting and fees.
- Creates a common ROW maintenance fee for all local governments.
- Offers a waiver of the ROW fee to providers in "lower-use communities."
- Requires local government to make a decision on ROW application within 45 days

In addition, the National Telecommunications and Information Administration (NTIA), a branch of the U.S. Department of Commerce, has been working with a variety of agencies and associations to streamline and simplify Rights of Way processes and procedures at the state and local level. As part of its work, NTIA has assembled a matrix of state ROW laws, which is attached as Appendix A to this report. [176]

[176] In addition to compensation statutes, the NTIA matrix also includes citations to relevant state statutes and provides a brief description of key statutory provisions relating to jurisdiction, timelines, nondiscrimination, mediation, remediation and maintenance concerning access to public Rights of Way. The information was compiled through original research by NTIA, with reliance on existing research by NARUC and NATOA; www.ntia.doc.gov/ntiahome/staterow/rowtableexcel.htm.